AMSAT News Service Weekly Bulletins
Issue: ANS-031
Date: 2010-01-31
Sources: amsat-ans-2010-ans-031-weekly.txt

AMSAT NEWS SERVICE
ANS-031

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

In this edition:

* 2010 OSCAR SKN "Best Fist" Winners
* ISS on SSTV This Week
* How's Satellite DX? Pretty Good, Thanks for Asking
* Sumbandila SO-67 Amateur Radio Operations Suspended
* Building the First US ARISSAT-1 Flight Unit Begins
* 8 New Cubesats in Development

SB SAT @ AMSAT $ANS-031.01
2010 OSCAR SKN "Best Fist" Winners

AMSAT News Service Bulletin 031.01
>From AMSAT HQ SILVER SPRING, MD.
January 31, 2010
To All RADIO AMATEURS
BID: $ANS-031.01

Ray Soifer, W2RS has compiled the Best Fist votes from AMSAT's Straight Key Night on OSCAR 2010 and reported the results this week. Ray said, "We saw a great deal of activity throughout the world, with 'Best Fist' nominations coming in from four continents." The following "Best Fist" winners, 23 in all, each received at least one nomination from someone they worked:

AA5PK, JA6SZV, JH7UJI, JO2ASQ, JR0EFE, K0RJS, N3TE, N3TL, N4ZQ, N5AFV, N7EQF, N9AMW, NR7Q, PV5AZ, PV8DX, PY2FFG, PY4ZBZ, WA5KBH, WA6ARA, WC7V, WD9EWK, 9A2EY, 9A5YY.

As some will remember, at one time we used to award a "grand prize" to the participant who got the most nominations. This was discontinued a few years ago, for fear of making the event too "competitive." However, we have to make an exception this year: Glenn Miller, AA5PK, received a record six nominations. Well done!

Many thanks to all who participated, and congratulations to all of our "Best Fist" winners.

See you next year!

[ANS thanks Ray Soifer, W2RS for the above information]

/EX

SB SAT @ AMSAT $ANS-031.02
ISS on SSTV This Week

AMSAT News Service Bulletin 031.02
>From AMSAT HQ SILVER SPRING, MD.
January 31, 2010
To All RADIO AMATEURS
BID: $ANS-031.02

This week the 145.800 MHz downlink from the International Space Station was active with the Slow Scan Television (SSTV) signals from the MAI-75 experiment. On Wednesday, January 27 automated SSTV operations were conducted using the VC-H1 system transmitting a Robot-36 formatted picture once every 3 minutes worldwide between 0900 to 1400 UTC. SSTV operations on Thursday, January 28, and Friday, January 29 were conducted using the PD-160 transmission format using MMSSTV and were generally focused toward ground stations in western Russia.

SSTV images received by Amateur Radio Operators worldwide this week have been uploaded to the ARISS SSTV gallery at:
http://www.amsat.org/amsat/ariss/SSTV/

The SSTV downlink on 145.800 from the ISS is transmitted in FM mode. You can receive and decode these images at your station using freeware software. You will need to connect the audio output from your 145.800 MHz receiver to an input on your computer's soundcard. Depending on your radio and computer an audio interface may be required. Plans for these are available via internet searches. Others have reported success by simply connecting a speaker or headphone jack to their soundcard input and adjusting levels using the soundcard driver program's audio slider controls.

One widely used SSTV software program is MMSSTV available at:
http://mmhamsoft.amateur-radio.ca/ (MMSSTV 1.11G or later is recommended).

The downlink signal from the ISS on 145.800 MHz is generally very strong and a full OSCAR class tracking system is not needed. Many Amateur Radio operators are successful using a 2 meter vertical on the house roof.

Tracking information for those who do not have a tracking program can be viewed on-line at:
http://www.amsat.org/amsat-new/tools/predict/satloc.php (and select the ISS as the object to be displayed).

[ANS thanks the ARISS team for the above information]

/EX

SB SAT @ AMSAT $ANS-031.03
How's Satellite DX? Pretty Good, Thanks for Asking

AMSAT News Service Bulletin 031.03
>From AMSAT HQ SILVER SPRING, MD.
January 31, 2010
To All RADIO AMATEURS
BID: $ANS-031.03

+ January 16 - WC7V had a contact with RN1NW via AO-7 Mode B over a distance of 7659 KM. Kerry, WC7V said, "I have hoped to make this contact for over 30 years. The satellite was ascending at my QTH and was at about 3 degrees elevation at the end of our QSO."

+ January 18 - ZS6BB had a contact with EA6SA via AO-7 Mode B over a distance of 7,766 KM. This contact was conducted via SSB.

+ January 23 - N3TL and KL7XJ had a contact on HO-68 in FM. Tim, N3TL said, "At the time, the satellite was below 4.5 degrees and descending for me. I'm thrilled to put state No. 49 in the log with my handheld station."

+ January 24 - Piraja PS8RF had a contact with EA4CYQ in SSB via the linear transponder through HO-68. This is believed to be the first SSB contact between South America and Europe on this satellite over a distance 7,477 KM. Juan Antonio, EA4CYQ wrote, "After that I worked Canada VE2DWE and several USA stations KB1RVT, K3SZH and KC9ELU.

+ January 25 - K3SZH with PY2OV on SSB via AO-7. The distance between the two stations was 7738 KM. PS8RF recorded the contact and posted a short video at: http://www.youtube.com/watch?v=gS4Mdl-P6X4

+ Schedule update for VP8 South Shetland Islands AO-51 operation. The DNXL Newsletter #1660 (Jan 27, 2010) reports that XR9JA will now be active between February 1 - 28. This operation was originally planned for January but has been re-scheduled. Their QTH will be the Chilean naval base "Arturo Prat" on Greenwich Island belonging to the South Shetland archipelago (AN-010). Their QSL manager is CE5JA (via bureau or direct) and more information can be found on their website: http://www.ce5ja.cl

+ FO-29 seems to be recovering well. On January 24 Rowland K4XD heard strong signals while copying his own CW signal with no one else on the satellite. On January 27 Mike, DK3WN reported strong signals received from FO-29.

+ January 28 - ZS6WB in Pretoria, South Africa copied a double-hop signal from I8CVS in Italy. Dom, I8CVS was uplinking to AO-7 on 432.158 MHz which translated out on 145.940 MHz on AO-7. The signal on 145.940 from AO-7 was received as an input on FO-29, and translated to 435.840 MHz output on FO-29. Hal, ZS6WB said he copied a good signal via 435.840 MHz for several minutes.

[ANS thanks everyone for the above information]

/EX

SB SAT @ AMSAT $ANS-031.04
Sumbandila SO-67 Amateur Radio Operations Suspended

AMSAT News Service Bulletin 031.04
>From AMSAT HQ SILVER SPRING, MD.
January 31, 2010
To All RADIO AMATEURS
BID: $ANS-031.04

The Sumbandila Satellite Operations at SunSpace in South Africa said this week that Amateur Radio Operations via SO-67 must be suspended temporarily due to system commissioning requirements of the main payload.

The message said after handover of operations of the commissioned payloads the Satellite Applications Center plans return SO-67 back to scheduled Amateur Radio operation in the middle-March to early-April, 2010 timeframe.

[ANS thanks Jan-Albert Koekemoer for the above information]

/EX

SB SAT @ AMSAT $ANS-031.05
Building the First US ARISSAT-1 Flight Unit Begins

AMSAT News Service Bulletin 031.05
>From AMSAT HQ SILVER SPRING, MD.
January 31, 2010
To All RADIO AMATEURS
BID: $ANS-031.05

Gould Smith, WA4SXM writing on behalf of the ARISSAT-1 team said construction of the flight unit begins next week when Tony Monteiro, AA2TX begins electronic assembly of the first US flight unit for ARISSat.

The ARISSAT-1 team has had prototypes working for months. The enclosures have been painted by NASA and the cables prepared by Larry Brown, N7LB. The flight boards were built by the Microchip ARISSat team and Chuck Green, N0ADI, with Chuck checking all the flight units.

Lou McFadin, W5DID has nearly assembled a complete flight structure designed by Bob Davis, KF4KSS. Lou expects to exhibit the structure in the AMSAT Booth at the upcoming Orlando HamCation. The first two flight TX/RX/Command receiver modules from Bill Ress, N6GHZ are due to arrive next week.

We just found out that ARISSat will receive a new callsign and some additional Russian greetings will be added. We will have more than 25 international greetings from around the world in twelve languages broadcast on the FM downlink. In addition to the greetings will be voice ID, voice telemetry values, SSTV images, CW signals, new 1k BPSK signal by Phil Karn, KA9Q sending full telemetry and experiment data and a 16 kHz wide transponder. Kurst State University in Russia is providing the experiment and the Silver-Zinc battery for the mission.

The ARISSAT-1 team will start system testing and Flight Safety reviews soon and plans to ship two flight units to Russia in the spring.

[ANS thanks Gould Smith, WA4SXM and the ARISSAT-1 Team for the above information]

/EX

SB SAT @ AMSAT $ANS-031.06
8 New Cubesats in Development

AMSAT News Service Bulletin 031.06
>From AMSAT HQ SILVER SPRING, MD.
January 31, 2010
To All RADIO AMATEURS
BID: $ANS-031.06

Four CubeSats from Japan are planned to launch on 20 May 2010 aboard the JAXA PLANET-C mission to Venus.

UNITEC-1, NPO UNISEC (University Space Engineering Consortium) will fly to Venus. This will provide Amateur Radio operators a deep space beacon for experimentation on 5.8GHz. More information is at: http://www.unisec.jp/unitec-1/en/top.html

Negai*", developed by Soka University will remain in low-earth orbit with a 437.305 MHz CW, Packet 1200bps FSK AX.25 downlink. More information is at: http://kuro.t.soka.ac.jp/main.html

WASEDA-SAT2, developed by Waseda University will remain in low-earth orbit with a 437.485 MHz CW(FM), PCM-FSK(FM) 9600bps downlink. More information is at:
http://www.miyashita.mmech.waseda.ac.jp/Waseda-Sat2/index.htm

KSAT, developed by Kagoshima University will remain in low-earth orbit with an uplink: S-band (2GHz, 10kbps) and downlink: Ku-band(13.275GHz, 10kbps/1Mbps). More information is at:
http://www.sci.kagoshima-u.ac.jp/~nishio/download/Ukaren2008Nishio.pdf

NASA plans to launch 3 CubeSats with Amateur Radio payloads. The satellites are manifested as an auxiliary payload on the Taurus XL launch vehicle for NASA's Glory Climate Mission, planned for liftoff in late November, 2010.

Montana State designated its satellite as Explorer 1 Prime, or E1P. The name honors the launch and scientific discoveries of the Explorer-1 mission, which detected the Van Allen radiation belts more than 50 years ago. E1P will carry a miniature Geiger tube to measure the intensity and variability of the electrons in the Van Allen belts. This satellite will use 437.505 MHz as its downlink. See:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=116

Colorado's satellite is named Hermes. Its mission is to improve CubeSat communications through the on-orbit testing of a high data-rate communication system that will allow the downlink of large quantities of data. The planned downlink frequency is 437.425 MHz. See:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=104

The Kentucky vehicle is called KySat-1. KySat, is believed to be the first CubeSat to carry a 2m to 70cm FM repeater. It includes a camera to support a scientific outreach program intended for, but not limited to, Kentucky students in kindergarten through 12th grade. The satellite also has a 2.4 gigahertz industrial, scientific and medical band radio, which will be used to test high-bandwidth communications in the license free portion of the S-band. KySat-1 plans to use 145.850 MHz FM uplink and 436.975 MHz FM downlink. See:
http://www.amsat.org.uk/iaru/finished_detail.asp?serial=102

The Cape Peninsula University of Technology (CPUT) in South Africa F'SATI post graduate program in Satellite Engineering announced plans for the development of an academic project which will develop and launch a 3U cubesat. The payloads will include a camera, a parrot repeater and a transponder. In partnership with the Hermanus Magnetic Observatory, a HF beacon will be included to assist the HMO to calibrate their radar systems in the Antarctic. A new type of magnetometer is also under consideration. The project plans to have a flight ready display in October 2011 when the International Astronomy Conference is held in Cape Town.

[ANS thanks Mineo Wakita, JE9PEL; SouthGate Amateur Radio News for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And, with that please keep in mind when the artist was questioned about his vehicle

being stalled by the side of the road his reply was, "I had no Monet to
buy Degas to make the Van Gogh."

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM
K9JKM at amsat dot org